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Applications of nanocellulose and its composites in bio packaging-based starch

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ABSTRACT

This mini-review discusses existing technology and future issues in applying nanocellulose as a starch-based packaging of food material. Biopolymers, mainly starch as packaging materials, are increasingly replacing petroleum plastics. This mini-review encompasses applying the commonly used nanocellulose starch-based bio packaging material, focusing on production processes, properties, and analysis of potential uses in starch-based bio packaging. The use of nanocellulose as an alternative material for starch-based bio packaging substitutes conventional polymers for food packaging and its entirely new properties and characterization. Microorganisms can produce cellulose biopolymers through the fermentation process of various biological resources (e.g., bacterial cellulose). Biomass can be produced directly from various plants (pineapple, water hyacinth, and others). Researchers are currently focused on reducing the problem of pollution due to conventional plastics produced from fossil fuels.

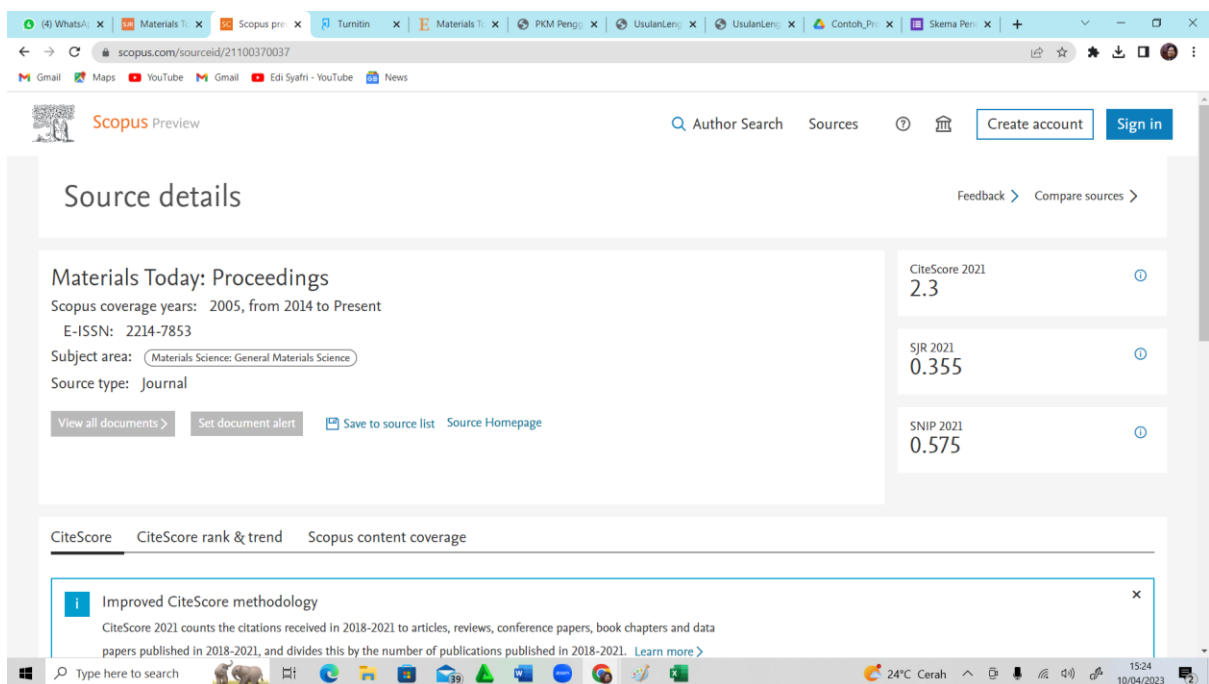
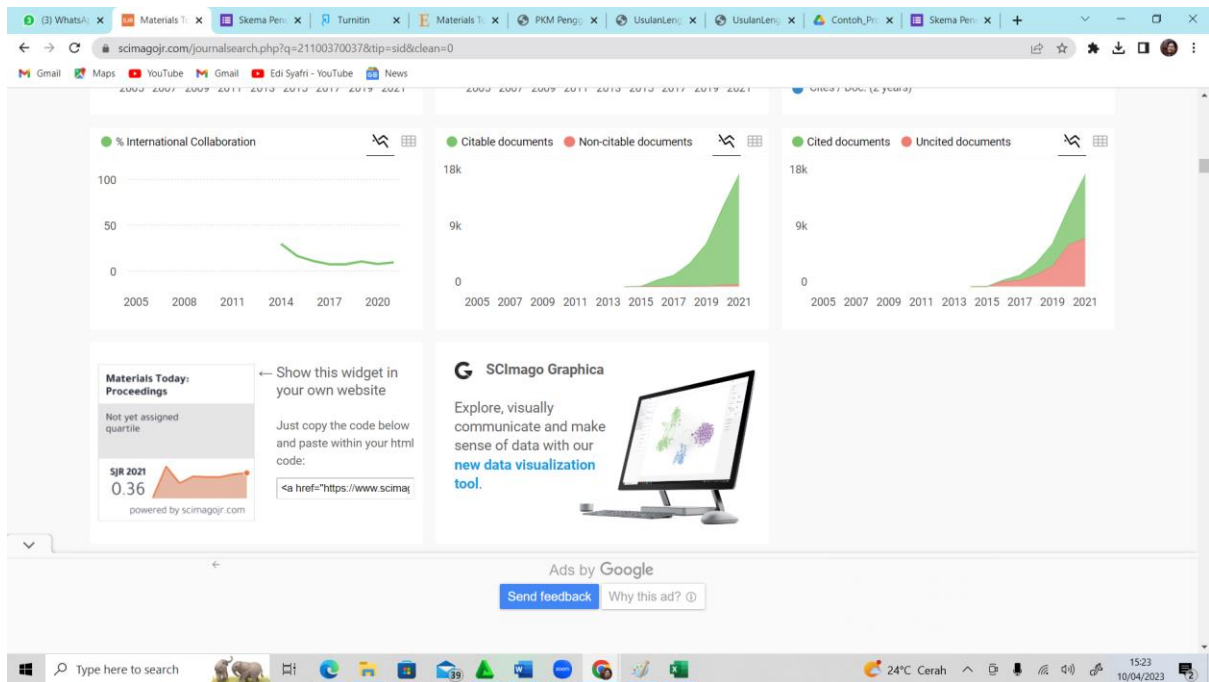
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COUNTRY	SUBJECT AREA AND CATEGORY	PUBLISHER	H-INDEX
United Kingdom Media Ranking in United Kingdom	Materials Science ↳ Materials Science (miscellaneous)	Elsevier Ltd.	56

PUBLICATION TYPE	ISSN	COVERAGE	INFORMATION



1. Research article Abstract only
 Polymeric materials used for immobilization of microalgae for the bioremediation of palm oil mill effluent
 Mohd Edyazuan Azni, Rozyanti Mohamad, Suhaini Mamat, Roslan Noorain, ... Yeong Yik Sung
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A comparative review of the effects of different fibre concentrations on arrowroot fibre and other fibre-reinforced composite films

J. Tarique, S.M. Sapuan, E.S. Zainudin, A. Khalina, ... I. Aliyu

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3. select article Applications of nanocellulose and its composites in bio packaging-based starch

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Melbi Mahardika, Devita Amelia, Azril, Edi Syafri

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Measuring material velocity and thickness mapping of flax fiber-reinforced plastic composites using automated ultrasonic rapid motion scanner

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Biodegradable synthetic polymer in orthopaedic application: A review

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